

THE ΩMEGA NETWORK

What is the secret of the Ωmega Network?

By Joe Vials

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Few Victorians realise the American Omega 'navigation' station just inland from Ninety Mile Beach is the only directional device in Australia capable of providing American ballistic missile submarines with position fixes accurate enough to launch a second strike nuclear attack against Russia. The station is so critical for American submarines, there can be little doubt two high-yield Russian thermonuclear ICBMs are permanently targeted on Victoria in case World War III breaks out. Perhaps worse, Omega emits potentially catastrophic levels of electromagnetic pollution from its invisible, buried Earth aerials.

During May 1975, just six months before Gough Whitlam was unceremoniously marched out of government by the Governor-General, the Commonwealth Government published a report from the Joint Committee of Foreign Affairs and Defence. Listed as Parliamentary Paper No. 96, "Omega Navigational Installation", the small booklet revealed very little about the true dangers of the Omega transmitter to Australians in general, and to Victorians in particular. Dissenters included Sen. Gordon McIntosh, John Dawkins, MP, and others suspicious of the Omega installation but unable to pinpoint its real purpose.

From the outset it was obvious that Omega would be of little use to Australian shipping in the east, due chiefly to the VLF (very low frequency) signal being so powerful the station was unusable as a navigation aid within 700 kilometres of East Gippsland. It was only beyond this range that the Omega signals could be decoded into a useful navigation fix.

Out of the eight Omega transmitters which comprise the global navigation chain, only Australia's station is located close to densely populated towns and cities. The fact that the massive ground wave signal might later cause Victorians health problems was either unknown during 1975, or was ignored by the committee during its deliberations.

What was also unknown at the time was the critical requirement for a VLF navigation system to provide accurate missile launch information for American nuclear ballistic submarines positioned in the southern hemisphere ready for a counter-strike against Russia—a task that could never be achieved from the northern hemisphere.

In the event of nuclear war in the northern hemisphere, devastating electromagnetic pulses from the first nuclear weapons which explode in the stratosphere will completely wipe out all radio channels over the country in question, apart from very low frequency ground waves—an established fact proved beyond doubt by the recently completed American GWEN (Ground Wave Emergency Network) of VLF stations spaced across the entire USA at 250-mile intervals, constructed solely for use after the first thermonuclear weapons have destroyed all other radio channels and burned out the circuits of orbiting navigation satellites. Worse still, the stars will be hidden by huge dust clouds hurled up into the stratosphere and beyond by thermonuclear ground-bursts, making stellar navigation impossible for submarines, aircraft and missiles alike.

There is only one place in the world where an accurate second nuclear strike could be launched—from submarines located in the southern hemisphere where Omega signals alone will remain stable for position fixing. Back in 1975, this concept probably escaped the committee because the only viable submarine-launched missiles available, Polaris and Poseidon, both had a restricted range of around 2,500 nautical miles. The implication was obvious. Russia could only be attacked from the northern Pacific or Indian oceans, so an Omega station based in East Gippsland was of no obvious importance in a global thermonuclear war between the superpowers far away to the north.

Clearly the committee gave no credence to Russian concern about Omega. On 4 October 1973, *Krasnaya Zvezda*, the Soviet Defence Ministry newspaper, commented in an editorial: "The Pentagon continues the construction of a system of long range radio-navigation, the so-called 'Omega', designed to provide coordinates for American strategic nuclear attack forces, missile-carrying submarines and strategic bombers."

The newspaper was speaking with some authority as the Soviet Union had already constructed three similar very low frequency navigation stations on its own territory for ballistic missile submarine guidance. In an overwhelming display of nuclear ballistic submarine denial, the Australian committee tried this tactic:

"Even if the Omega system was essential to the operations of ballistics submarines, the Australian transmitter would not be. No submarine-launched missile attack upon the United States, the Soviet Union or China is possible from any ocean area in which Omega reception would depend upon an Australian transmitter."

"Any American submarine missile launch against the Soviet Union or China would have to take place from waters in which a submarine would find transmissions from Japan, Reunion Island, Liberia, the United States or Norway entirely adequate for its Omega reception. Any Soviet launch against the United States would be from waters where, equally, Australian transmissions are not essential."

Because reservations were expressed about the use of the system by American nuclear ballistic submarines, a comforting assurance was issued by the United States Government that:

"Omega receivers will not be installed in United States ballistic missile (FBM) submarines. The Omega system does not possess sufficient accuracy for these ships, nor in fact does it have any uniquely military application."

This statement was a startling break with the well-known American policy of refusing to 'either confirm or deny' the equipment fit on any of its vessels, aircraft or missiles. The United States Government was thus either lying through its hind teeth when it made the claim, or was displaying a truly staggering level of military ignorance.

During the 1975 negotiations with Australia, the United States Government was holding an ace up its sleeve: the Trident missile system, already on the drawing board and designed for a colossal strike range of over 6,000 nautical miles, making launches from the southern Pacific and Indian oceans not only feasible but also logical in order to completely avoid the electromagnetic holocaust raging in the northern hemisphere after a first-strike thermonuclear attack. Indeed, the range and accuracy of the Trident D5 missile allows launches from an ocean position due south of the Australian continent itself—a useful place to hide when fighting a huge northern hemisphere 'America vs Russia' nuclear war. Unfortunately, this scenario would drag Australia into the nuclear mess in a very big way.

The range of Trident D5 is especially damning. No one designs a missile with a range of between six and seven thousand nautical miles unless extreme range is an operational requirement. Based on this, the design launch position must be well down in the southern hemisphere, because it is the only area of the globe far enough away from Russia to utilise the missile's full strike capability. In contrast, Russia could never use the oceans around Australia to launch a second strike against the US, for the simple reason Russian sub-launched missiles have a maximum range of just over four thousand nautical miles—far too short for southern hemispheric use.

The implication is obvious. The Russian military will be well aware that the Omega station in Victoria is of critical importance for an American second strike, but of absolutely no use to its own submarines. Targeters take no chances with high-profile command and control systems providing accurate data for hostile ballistic

missile submarine fleets. As tradition demands, East Gippsland will be targeted with a minimum of two multi-megaton warheads riding on independently launched missiles. If the first warhead should fail to explode, the second will swiftly contaminate half of greater Victoria in less than 10 milliseconds.

Even with high-grade self-contained inertial navigation gyros, no nuclear ballistic missile submarine could maintain a post-first-strike fighting capability without Omega providing continual external navigation updates because position accuracy would continually degrade. Perhaps sonar mapping could be used to keep the sub on station above the seabed? The problem here is that using sonar aboard a ballistic missile submarine is similar to ringing all the bells in a church steeple on Sunday morning. The deadly hunter-killer subs in the area would trace the transmission in seconds, then fire a SUBROC UUM-44A or similar from one of their torpedo tubes.

Once out of its torpedo tube the SUBROC switches to missile mode, leaves the water and skims along as far as 70 kilometres before diving back into the water near the ballistic missile submarine. On re-entry the 1-kiloton SUBROC nuclear mine explodes and crushes the hull of the target sub like tissue paper. Enough SUBROCs exploding in the Southern Ocean during a nuclear conflict should completely remove Australia's whaling problem. There would be very few whales left to worry about.

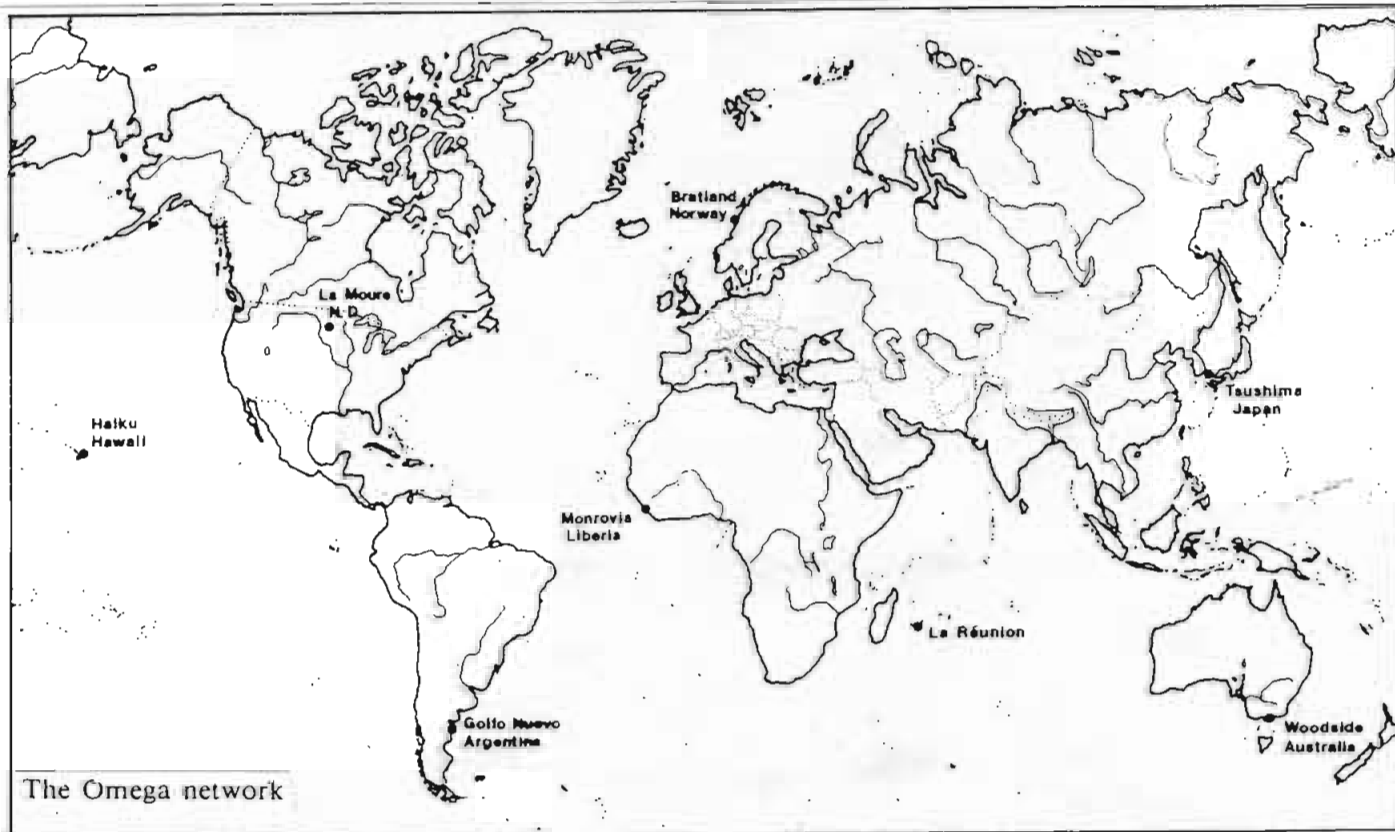
There are those who will argue with this article of course, especially where the accuracy of Omega is concerned, and its ability to provide sufficiently accurate positions for a second-strike capability. The most cogent argument is the submarine's inertial navigation gyros (SINs) provide much greater accuracy when continually updated by satellite input. Problem! After a first strike, this will be impossible to achieve because the satellite circuits will be burned out and utterly useless. Thus over a short time period the gyro error rate will increase, making accurate targeting all but impossible. However, with all known minor Omega transmission inaccuracies logged in the sub's massive computer databases, on-board Omega atomic standards would hold the submarine on station indefinitely.

Peace researchers Wilkes and Gleditsch stated in 1987 that, after many years of very active opposition to Omega, they were mistaken in claiming it was a ballistic submarine navigation system. In their 400-page book which fingered a system called Loran-C as the real villain, both took a determined, aggressive stand clearly intended to bury Omega once and forever:

"Our approach to the problem of exploring the military functions of Loran-C and Omega has been likened by one correspondent to 'cracking a hazelnut with a sledgehammer'. There is some truth in this. To sharpen the metaphor, we use a sledgehammer mainly because of a desire to thoroughly pulverise, rather than merely crack the nut."

It is perhaps ironic that one of Wilkes' and Gleditsch's main thrusts in pinpointing Loran-C's superior accuracy was that system's use of both sky wave and ground wave transmissions at the same time, claiming "the ground waves hug the surface of the Earth and are characterised by very stable propagation velocities and moderately low propagation losses. These qualities lead to high accuracy and moderately long receivable range." Perhaps through a lack of knowledge their 400-page book failed to mention that Omega also generates a massive, stable ground wave providing excellent, accurate navigation fixes at ranges more than triple those provided by Loran-C.

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The power and accuracy of Omega's ground waves has been proven in Western Australia by a radio expert specialising in low frequency signals, using a purpose-built ground-loop aerial coupled through an upgraded VLF receiver to a Hewlett Packard spectrum analyser. The ground wave can be detected six feet above the ground in Perth, with signal strength increasing the closer the aerial is placed to the ground itself. The ground wave is extremely accurate, suffering none of the sky wave inaccuracies mentioned in many US Department of Defense texts. It goes almost without saying that the ballistic missile subs use the accurate ground wave for position fixes, not the inaccurate sky wave.

To get an accurate position fix using Omega, the submarine must obtain signals from three different stations at the same time. If launching Trident D5 missiles well south of Australia, for example, the stations in East Gippsland, La Réunion and southern Japan would probably be used, with Hawaii as a backup. Remove the East Gippsland station and the American submarines would be compelled to move far to the north-west in order to get their third signal from Liberia, or far to the east to get a third signal from the station in Argentina.

Omega has a unique benefit. The VLF transmissions are so low (10.2, 11.33 and 13.6 kHz) that the sub has no need to surface to receive them, but can remain effectively hidden 50 feet underwater—a feat the giant VLF transmitter at North West Cape cannot compete with. The higher 23 kHz frequency signal from North West Cape can only penetrate water to a maximum depth of around 5 feet. Loran-C is effectively crippled at this point because it operates around 90-110 kHz and is a ground-'hugging' wave which penetrates water not at all, rather than being a true ground wave like Omega, which suffers no such limitation.

Proof that only 'very low' or 'extremely low' frequencies can be used to penetrate below the surface of the oceans was provided by Nikola Tesla, who provided the information in his US patent no. 787,412, approved on 18 April 1905. Tesla noted:

"The frequency should be smaller than 20,000 per second,

though shorter waves might be practicable... The lowest frequency is six per second."

In brief, Tesla was stating that only those frequencies below 20 kHz have the ability to penetrate the Earth or water, and he had proved the point. From Tesla's patent data it is not difficult to understand that Omega, with an operating frequency range between 10 and 15 kHz, is perfectly suited to the job.

Aware of Tesla's work, and its own requirement to penetrate even deeper into the water, the US Department of Defense commissioned the Sanguine system, which operated way down in the ELF (extremely low frequency) range between 300 Hz and 3 kHz, and penetrated water to a depth of approximately 300 feet. The US-based Sanguine ground wave caused so many obvious adverse environmental effects on American citizens that it had to be scrapped completely. With Sanguine out of the running, Omega remains the only accurate underwater positioning system for the American nuclear ballistic missile submarine fleet in the southern hemisphere launch zone.

The inevitability of a first-strike nuclear attack on the East Gippsland Omega station as a vital component of the critical 'Command, Communications, Control' (C3) structure supporting the Trident missile deterrent, is currently shrouded by a huge amount of political and academic doublespeak about the lack of threat to US bases such as Omega on Australian territory because 'the Cold War is over'. According to many earnest experts we can forever forget nuclear strikes because of the brave 'New World Order'. Such arguments are specious academic claptrap.

Cold, lukewarm or red-hot, there are still 30,000+ thermonuclear intercontinental ballistic missiles ready for launch from land-based silos and submarines. Further, due to the destabilisation of the old Soviet Union and the current disarray in its republics, there is now probably a much higher risk of a catastrophic 'accidental' ICBM launch than ever there was at the height of the so-called 'Cold War'.

Australians should be left in no doubt about Russian intent where the Victorian Omega station is concerned in the event of thermonuclear war, accidental or otherwise. A pair of multi-megaton warheads will home in on East Gippsland with the same unerring accuracy as racing pigeons heading home to roost.

For Victorians there may well be serious health problems to consider where Omega is concerned. The aerial was stated to transmit only 10,000 watts of radio energy—the figure submitted and used for the environmental impact assessment, which concluded in its appendix "...that the establishment of an Omega facility on this site will have little impact on the social, biological, and physical environment of the area."

In reality, the environmental dangers are considerably worse due to the massive ground wave transmitted through the earth in the same manner as the American Sanguine system. The input power to the Omega transmitter is far higher than the 10,000 watts claimed during environmental assessment. The East Gippsland Omega station has a dedicated substation containing two 450,000-watt transformers, and a 500,000-watt standby alternator driven by a V12 diesel. All this for a 10,000 watt signal?

Of course not. The tall mast radiating the 10,000-watt sky wave is really only a 'capacitor' for the massive ground wave which is transmitted through the Earth by giant, buried copper Earth aerials radiating out around the base of the mast every ten degrees for a distance of 1,100 feet each. The Earth aerials easily transmit whatever output is fed to them by the huge aerial-tuning helix coil which is wound from special six-centimetre-thick Litz wire. Though the exact ground wave output power remains secret, six-centimetre Litz wire can handle half a million watts without even getting hot. The long-term environmental effects of such an intense electromagnetic field on Victorian citizens can only be wondered at.

For those who may be sceptical at this point, it should be noted that one of the declared primary requirements for the Omega site was 'high soil conductivity'; in other words, the ability of the ground to transmit electromagnetic fields for long distances. The US Department of Defense was indeed fortunate in securing East Gippsland as a site. Victorian soil is highly conductive all the way to Melbourne and beyond. It is also noteworthy that the remote transmitter monitoring site had to be located a minimum of 30 kilometres away from the powerful ground wave aerials, in order to escape their ground effects. At this point in time, the precise location of the remote Omega monitoring site remains unknown.

Author Robert Becker, MD, an expert of considerable renown in the specialised field of electromagnetic pollution, and a Nobel Prize nominee, has published alarming information about increased incidence of cancer, cataracts, developmental defects, genetic effects, and mental illness due to powerful electromagnetic fields emitted by low frequency transmitters and allied equipment. Dr Becker researched many areas containing powerful transmitters and made the following general observation about all forms of radiated electromagnetic energy:

"All abnormal, man-made electromagnetic fields, regardless of their frequencies, produce the same biological effects. These effects, which deviate from normal functions and are actually or potentially harmful, are the following:

- effects on growing cells, such as increases in the rate of cancer cell division

- increases in the incidence of certain cancers
- developmental abnormalities in embryos
- alterations in neurochemicals, resulting in behavioural abnormalities such as suicide
- alterations in biological cycles
- stress responses in exposed animals that, if prolonged, lead to decline in immune-system efficiency
- alterations in learning ability."

Omega has been transmitting continuously for at least 10 years, quite long enough for health statistics in Victoria to be compared with others in New South Wales and Queensland, for example, on a 'before' and 'after' basis—especially within 700 kilometres of the powerful VLF Omega transmitter itself. The results might be very discouraging for Victorians. It is perhaps time for all Australians to take a more active interest in the hidden hazards posed by certain foreign bases on their own sovereign territory, especially those like Omega which are of absolutely no use to Australian citizens, but nonetheless pump out continual invisible electromagnetic pollution at massive power settings 24 hours a day, 365 days a year.

Senator Gordon McIntosh, now retired and living in South Perth, was Chairman of the Senate Committee during the Omega hearings. He says there was a considerable amount of distrust during the period the committee sat, mostly because there was no obvious benefit to Australia from installing the Omega system, and because the subcommittees seemed unable to present an adequate case for the American transmitter to be sited in Victoria. As a result, he registered his firm dissent. A very wise decision in light of the evidence available today.

It is nearly 18 years since Gough Whitlam was marched out of his office on the orders of the Governor-General, after the American CIA used 'dirty tricks' to bring about his downfall. Though it is unlikely a direct connection could ever be established, it is interesting to speculate why the CIA became so actively involved specifically during 1975. Perhaps American nuclear ballistic submarine interests were deemed to be more important than the lives and good health of the people of Victoria?

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